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DT-6085

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT: Dieter Husar

SERIAL NO.: 10/046,522

FILED: January 14, 2002

FOR: Device for Handling Liquid Samples . . .

EXAMINER: Lyle Alexander

GROUP: 1743

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

Sir:

Pursuant to 37 CFR sections 1.97 and 1.98, applicant respectfully requests that the documents listed on the attached form PTO-1449, be made of record and considered in connection with the examination of this application. Copies of the listed documents are enclosed. A translation of the foreign language document(s) is not readily available.

The documents submitted herewith were cited during prosecution of a German application corresponding to the above-referenced application.

06/28/2005 EAREGAY1 00000074 500955 10046522

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U.S. Patents Nos. 4,775,515; 5,500,187; 6,120,736; 6,117,395; 6,280,148; and 6,686,208 correspond to German documents DE 3739046, DE 4341862, 19507638, 19524795, 197 06513, and 19711281 cited by the German Patent Office.

Brief description of other German language documents follows.

European Patent Publication EP 0 725267 discloses an electrically controlled micro-pipette that handles fluids with or without microparticle content, in volumes between a few hundred pico litres and several micro litres. The arrangement includes microejection pump with microengineered chamber (7). Its elastic wall (14) is controlled by an electrical actuator (12) forming a micromembrane pump. Its pipette tip has a microdischarge capillary (4). It is initially filled with a fluid which is inert under the conditions of use. Fluids are taken in spontaneously or under pump suction. Droplets are delivered in constant size and known number, the rate of delivery controlled by electrical signal frequency. Further micropumps may be added for precision adjustment and washing purposes. A metallised tip forms an electrical immersion sensor, used in extraction.

German Patent DE 69303898 T2 (based on European Patent EP 0637998B1)

discloses devices for detecting the presence of a preselected analyte in a fluid sample. The devices comprise a substrate microfabricated to define a sample inlet port (16), and a mesoscale flow system that includes a sample flow channel (20) extending from the inlet port. The mesoscale flow system further includes an analyte detection region (22) in fluid communication with the flow channel (20) comprised of a binding moiety for specifically binding the analyte. The detection region is constructed with a mesoscale dimension sufficiently small to enhance binding of the binding moiety and the analyte. The binding moiety may be immobilized in the detection region. The mesoscale detection systems of the invention may be used in a wide range of applications, including the detection of cells or macromolecules, or for monitoring reactions or cell culture growth.

German Patent DE 69303483T2 (based on European Patent EP 0639223B1)

discloses devices for detecting the presence of a preselected analyte in a fluid sample. The devices comprise a substrate microfabricated to define a sample inlet port (16), and a mesoscale flow system that includes a sample flow channel (20) extending from the inlet port. The mesoscale flow system further includes an analyte detection region (22) in fluid communication with the flow channel (20)

comprised of a binding moiety for specifically binding the analyte. The detection region is constructed with a mesoscale dimension sufficiently small to enhance binding of the binding moiety and the analyte. The binding moiety may be immobilized in the detection region. The mesoscale detection systems of the invention may be used in a wide range of applications, including the detection of cells or macromolecules, or for monitoring reactions or cell culture growth.

German Utility Model DE 29801523U1 discloses a micropipette or an actuator having at least 1 capillary channel (1), formed by microstructuring in a substrate (2) such as of glass, to form a covered gutter. It is connected at one side to a pressure chamber (3), which has a controlled electric heater (4) as a thin-layer heating resistance (4) in the outer wall of a stiff membrane (31) forming the pressure chamber (3). A heat sink (5) is at the connection between the capillary channel (1) and the pressure chamber (3). The capillary channel (1) accommodates a liquid column (6) or a plunger.

Wolfgang Ehrfeld et al., "Use Potentials for Chemical and Biological Microreactors", Chemie Ingenieur Technik, Vol. 69 (1997), pp. 931-934, discloses different uses of a microreactor.

The Commissioner is hereby authorized to charge the fee required under 37 CFR §§ 1.17(p) in the amount of \$180 and any further fees which may be required, or credit any overpayment to our Deposit Account No. 50-0955.

Respectfully submitted,

Alexander Zinchuk

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Reg. No. 30,541

Dated: June 24, 2005

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I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail and addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on June 24, 2005.

Alexander Zinchuk

Alexander Zinchuk

Form PTO-1449 INFORMATION DISCLOSURE CITATION IN AN APPLICATION			Docket No.: DT-6085							Serial No.: 10/046,522		
			Applicant(s): Dieter Husar									
			Filing Date: January 14, 2002							Group: 1743		
			U.S. PATENT DOCUMENTS									
O I P E U. S. PATENT & TRADEMARK OFFICE Initials	Document Number	Date	Name	Class	Subclass	Filing Date if appropriate						
						AA	3	6	2	0	6	7
	AB	3 7 9 9 7 4 2	3/1974	Coleman								
	AC	4 7 7 5 5 1 5	10/1988	Cottingham								
	AD	5 5 0 0 1 8 7	3/1996	Deoms et al.								
	AE	5 5 0 4 0 1 1	4/1996	Gavin et al.								
	AF	6 1 1 7 3 9 5	9/2000	Plough et al.								
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	AJ											
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FOREIGN PATENT DOCUMENTS												
		Document Number	Date	COUNTRY	Class	Subclass	TRANSLATION					
							YES	NO				
	AL	9 6 0 0 6 1 4	1/1996	PCT								
	AM	9 6 1 4 9 3 4	5/1996	PCT								
	AN	9 7 0 4 2 9 7	2/1997	PCT								
	AO	9 7 4 4 1 3 2	11/1997	PCT								
	AP	9 8 0 5 4 2 4	2/1998	PCT								
	AQ	9 9 3 5 5 8 4	1/1999	PCT								
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)												
AR	Wolfgang Ehrfeld et al., "Use Potentials for Chemical & Biological Microreactors," Chemie Ingenieur Technic, Vol. 69 (1997) 931-934											
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EXAMINER							DATE CONSIDERED					

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FOREIGN PATENT DOCUMENTS								
		Document Number	Date	Country	Class	Subclass	TRANSLATION	
							YES	NO
ALL	0 5 4 5 2 8 4	6/1993	EPO					
AMM	0 7 2 5 2 6 7	8/1996	EPO					X
ANN	0 8 0 3 2 8 8	10/1997	EPO					
AOO	0 8 9 7 7 5 0	2/1999	EPO					
APP	0 9 0 3 1 8 0	3/1999	EPO					
AQQ	9 3 0 3 8 9 8	2/1995	Germany					X
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FOREIGN PATENT DOCUMENTS									
		Document Number		Date	COUNTRY	Class	Subclass	TRANSLATION	
		ALL ¹	9 3 0 3 4 8 3	2/1995	Germany			YES	NO
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		AN							
		AO							
		AP							
		AQ							
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